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CURRENT SERIAL RECORDS



STANDARD DHIA

OWNER SAMPLER

WEIGH-A-DAY-A-MONTH

AGRICULTURAL RESEARCH SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Dairy-Herd-Improvement Letter

ARS-44-138  
(Vol. 40, No. 2)

March 1964

### DHIA PARTICIPATION REPORT January 1, 1964

The National Cooperative Dairy Herd Improvement Program, which is a composite of the Standard (including DHIR), Owner-Sampler, and Weigh-a-Day-a-Month recordkeeping plans, included 67,664 herds and 2,822,522 cows on January 1, 1964. This represents 17.1 percent of the nation's dairy cow population and is an increase of 39,018 cows during the past year. Each of the 50 States and Puerto Rico are represented in the total program which includes 1,420 associations and 2,474 supervisors. The participation reports for the overall program, and the Standard, Owner-Sampler, and Weigh-a-Day-a-Month plans are shown in tables 1, 3, 4, and 5, respectively.

The steady growth of Standard DHIA is shown in table 2. During the past year, 1,267 fewer herds, but 3,610 more cows were included in herds averaging 49.4 cows. There has been a slight but steady decline in percentage of fat test since 1950, averaging 0.014 percent per year. These averages and rates of decline are in close agreement with those estimated for all U. S. dairy cows.

The Owner-Sampler plan includes 752,229 cows, 44 percent of which are in Wisconsin, and represents 25,598 herds averaging 29.4 cows. The 60,149 cows enrolled in the Weigh-a-Day-a-Month plan represent 1,396 herds averaging 43.1 cows.

Issued April 1964

The continued advance of central processing is evident from table 6. Central processing of Standard plan records has reached 100 percent in 14 States, and in all States averages 74.2 percent of the herds and 64.6 percent of the cows. The corresponding values for the total recordkeeping program are 66.6 and 61.8 percent.

A 10-year summary of DHIA and all U. S. cows is shown in table 7. Since 1954, the nation's dairy herd has been decreasing by 560 thousand cows annually, while participation in the total recordkeeping program has increased by 165 thousand cows annually. The net result has been an increase in percent of U. S. cows participating in the total DHIA program from 6.2 in 1954 to 17.1 in 1963.

The list of counties having 25 percent or more of their dairy cows on one or more of the recordkeeping plans is shown on pages 10 and 11. This list, which is more selective by 5 percent than in the past, includes 463 counties.

Table 1--THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM  
(January 1, 1964)

State	Asso- ciations	Super- visors	Standard		Owner-Sampler		Weigh-a-Day a-Month		Total		Milk cows in U. S.	
			Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Total 1/ Thousand	In all plans 2/ Pct.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		
Ala-----	22	21	269	22,522	19	1,633	37	2,519	325	26,674	216	12.3
Alaska--	2	2	12	521	-	-	-	-	12	521	3	17.4
Ariz-----	5	10	143	20,355	14	3,059	-	-	157	23,414	51	45.9
Ark-----	11	12	75	3,605	36	1,150	26	450	137	5,205	191	2.7
Calif----	32	139	1,908	318,168	196	8,019	-	-	2,104	326,187	798	40.9
Colo-----	15	22	215	12,973	26	902	-	-	241	13,875	111	12.5
Conn-----	8	27	452	22,493	76	2,747	-	-	528	25,240	76	33.2
Del-----	3	5	89	3,703	15	370	3	54	107	4,127	24	17.2
Fla-----	9	10	109	18,726	7	2,137	28	10,479	144	31,342	177	17.7
Ga-----	32	33	385	26,786	1	100	43	2,600	429	29,486	193	15.3
Hawaii---	1	1	14	3,089	1	200	4	215	19	3,504	14	25.0
Idaho----	40	40	747	28,713	10	165	6	335	763	29,213	192	15.2
Ill-----	58	94	1,646	63,952	419	12,679	235	6,407	2,300	83,038	504	16.5
Ind-----	57	80	1,124	40,297	299	8,480	-	-	1,423	48,777	398	12.3
Iowa-----	72	93	1,786	57,438	1,486	33,736	12	153	3,284	91,327	790	11.6
Kans-----	49	62	773	33,098	91	2,727	10	300	874	36,125	304	11.9
Ky-----	44	53	535	22,000	7	126	66	1,946	608	24,072	480	5.0
La-----	15	17	69	5,268	8	726	153	8,471	230	14,465	219	6.6
Maine----	15	33	484	19,322	106	3,542	5	120	595	22,984	90	25.5
Md-----	16	40	835	45,373	88	3,335	-	-	923	48,708	212	23.0
Mass-----	11	31	515	22,256	89	2,603	-	-	604	24,859	87	28.6
Mich-----	89	130	2,170	86,263	1,894	54,995	34	1,083	4,098	142,341	627	22.7
Minn-----	87	206	3,902	125,954	1,765	44,804	-	-	5,667	170,758	1,264	13.5
Miss-----	17	20	190	11,334	2	155	80	3,000	272	14,489	304	4.8
Mo-----	44	45	591	24,321	18	450	200	5,000	809	29,771	608	4.9
Mont 3/-	8	9	88	4,055	38	1,597	6	190	132	5,842	70	8.3
Nebr-----	28	31	317	13,265	79	2,779	15	450	411	16,494	285	5.8
Nev-----	3	3	46	3,849	6	179	-	-	52	4,028	15	26.9
N. H-----	9	17	289	12,927	81	2,438	1	30	371	15,395	50	30.8
N. J-----	10	26	553	29,992	85	3,291	1	30	639	33,313	117	28.5
N. Mex---	6	8	36	5,354	5	469	4	1,410	45	7,233	40	18.1
N. Y-----	49	208	3,795	167,490	2,995	97,407	-	-	6,790	264,897	1,217	21.8
N. C-----	53	53	799	42,913	44	1,394	93	4,111	936	48,418	250	19.4
N. Dak---	17	17	190	6,612	57	1,258	86	1,602	333	9,472	255	3.7
Ohio-----	83	145	2,283	80,600	1,487	36,656	7	256	3,777	117,512	626	18.8
Okla-----	17	20	183	10,589	44	1,604	16	597	243	12,790	213	6.0
Oreg-----	18	27	440	27,215	150	4,600	10	250	600	32,065	144	22.3
Pa-----	58	208	4,746	172,807	1,420	37,969	-	-	6,166	210,776	848	24.9
P. R-----	1	5	19	4,688	-	-	21	2,303	40	6,991	-	-
R. I-----	2	2	50	2,518	4	117	-	-	54	2,635	12	22.0
S. C-----	21	21	242	19,858	3	144	31	1,208	276	21,210	100	21.2
S. Dak---	15	14	174	6,876	271	6,690	-	-	445	13,566	230	5.9
Tenn-----	39	33	487	25,510	2	77	73	1,653	562	27,240	476	5.7
Tex-----	27	30	348	27,782	8	380	11	910	367	29,072	519	5.6
Utah-----	19	19	400	18,237	21	637	-	-	421	18,874	90	21.0
Vt-----	31	73	996	47,298	549	19,800	-	-	1,545	67,098	252	26.6
Va-----	52	58	1,075	61,402	82	2,616	3	178	1,160	64,196	309	20.8
Wash-----	23	42	871	50,766	209	7,706	1	131	1,081	58,603	222	26.4
W. Va----	12	16	228	9,720	13	533	75	1,708	316	11,961	112	10.7
Wis-----	61	156	2,934	117,995	11,237	332,021	-	-	14,171	450,016	2,127	21.2
Wyo-----	4	7	43	1,296	35	1,027	-	-	78	2,323	26	8.9
Total or average	1,420	2,474	40,670	2,010,144	25,598	752,229	1,396	60,149	67,664	2,822,522	16,538	17.1

1/ Average number of milk cows on farms excluding heifers not fresh; estimated by the Statistical Reporting Service.

2/ Percentage of cows included in the National Cooperative Dairy Herd Improvement Program.

3/ Based on last report available (1-1-63).



Table 2--GROWTH OF DAIRY-HERD-IMPROVEMENT ASSOCIATION WORK IN THE UNITED STATES  
(1906-1964, inclusive)

Year	Associa- tions <u>1/</u>	Super- visors <u>1/</u>	Standard Plan					
			Herds	Cows	Cows per herd	Average production		
						Milk	Percent Fat	Fat
	No.	No.	No.	No.	No.	Lbs.		Lbs.
1906---	1	----	31	239	7.7	5,300	4.06	215
1907---	4	----	----	1,606	----	5,366	4.10	220
1908---	6	----	----	3,921	----	-----	-----	---
1909---	25	----	----	11,921	----	-----	-----	---
1910---	40	----	----	<u>2/</u> 25,000	----	<u>2/</u> 5,730	3.96	<u>2/</u> 227
1911---	64	----	----	<u>2/</u> 40,000	----	-----	-----	---
1912---	82	----	----	<u>2/</u> 43,000	----	-----	-----	---
1913---	100	----	----	47,150	----	-----	-----	---
1914---	163	----	----	73,280	----	-----	-----	---
1915---	211	----	----	105,526	----	-----	-----	---
1916---	346	----	----	150,677	----	-----	-----	---
1917---	459	----	11,720	216,831	18.5	-----	-----	---
1918---	353	----	9,778	172,518	17.6	-----	-----	---
1919---	385	----	10,000	167,313	16.7	-----	-----	---
1920---	468	----	11,948	203,472	17.0	6,175	4.00	247
1921---	452	----	11,209	193,928	17.3	-----	-----	---
1922---	513	----	12,508	215,321	17.2	-----	-----	---
1923---	627	----	16,357	277,010	16.9	-----	-----	---
1924 <u>3/</u>	---	----	----	----	----	-----	-----	---
1925---	732	----	18,677	307,073	16.4	7,189	3.95	284
1926---	777	----	19,540	327,653	16.8	7,331	3.96	290
1927---	837	----	21,128	362,014	17.1	7,411	3.95	293
1928---	947	----	23,327	414,891	17.8	7,476	3.96	296
1929---	1,090	----	26,182	465,804	17.8	7,498	3.97	298
1930---	1,143	----	27,888	507,549	18.2	7,642	3.96	303
1931---	1,112	----	26,308	510,714	19.4	7,812	3.92	306
1932---	1,005	----	20,351	427,044	21.0	7,858	3.95	310
1933---	881	----	15,447	358,501	23.2	7,849	3.99	313
1934---	793	----	13,694	325,837	23.8	8,015	4.02	322
1935---	809	----	15,573	364,218	23.4	7,977	4.04	322
1936---	876	----	17,344	404,412	23.3	7,912	4.03	319
1937---	992	----	20,772	496,562	23.9	7,923	4.04	320
1938---	1,106	----	23,701	558,993	23.6	7,831	4.05	317
1939---	1,228	----	25,949	625,284	24.1	7,977	4.05	323
1940---	1,300	----	27,948	676,141	24.2	8,133	4.07	331
1941---	1,383	----	31,381	763,502	24.3	8,225	4.07	335
1942---	1,421	----	32,957	816,117	24.8	8,323	4.07	339
1943---	1,057	----	24,155	616,972	25.5	8,325	4.06	338
1944---	954	----	20,825	561,587	27.0	8,296	4.05	336
1945---	949	----	21,254	577,200	27.2	8,592	4.03	346
1946---	1,124	----	23,331	627,878	27.0	8,635	4.04	349
1947---	1,426	----	28,812	775,546	26.9	8,638	4.03	348
1948---	1,668	----	33,274	886,129	26.6	8,675	4.03	350
1949---	1,787	----	35,851	943,939	26.3	8,907	4.03	359
1950---	1,973	----	40,100	1,088,872	27.2	9,172	4.03	370
1951---	2,143	----	42,949	1,186,615	27.6	9,195	4.02	370
1952---	2,109	----	40,105	1,166,297	29.1	9,192	3.98	366
1953---	2,151	----	40,983	1,226,588	29.9	9,253	3.98	368
1954---	2,175	----	41,254	1,311,698	31.8	9,363	3.97	372
1955---	2,288	----	41,240	1,333,866	32.3	9,502	3.95	375
1956---	2,266	----	40,984	1,406,306	34.4	9,713	3.94	383
1957 <u>4/</u>	1,700	2,310	41,638	1,479,799	35.5	9,894	3.93	389
1958---	1,544	2,293	39,985	1,548,884	38.7	10,068	3.91	394
1959---	1,500	2,337	40,284	1,607,538	39.9	10,327	3.88	401
1960---	1,509	2,397	41,293	1,746,752	42.3	-----	-----	---
1961---	1,395	2,448	42,558	1,867,469	43.9	10,796	3.87	<u>5/</u> 418
1962---	1,436	2,472	42,034	1,958,355	46.6	11,032	3.86	426
1963---	1,441	2,516	41,937	2,006,534	47.8	11,286	3.85	434
1964---	1,420	2,474	40,670	2,010,144	49.4	-----	-----	---

1/ Number of associations and supervisors include all plans.

2/ Estimated.

3/ Date for collecting data changed in 1924 from July 1 to January 1.

4/ Prior to 1957 associations were counted on the basis of supervisor circuits.

5/ Date for summarizing data changed in 1961 from January 1 to May 1.

Table 3--STANDARD DHIA RECORDKEEPING IN THE UNITED STATES  
(January 1, 1964)

State	Herds No.	Cows No.	Av. Cows per herd No.	Milk Cows in U. S. 1/	
				Total Thousand	in DHIA Pct.
Ala-----	269	22,522	83.7	216	10.4
Alaska-----	12	521	43.4	3	17.4
Ariz-----	143	20,355	142.3	51	39.9
Ark-----	75	3,605	48.1	191	1.9
Calif-----	1,908	318,168	166.8	798	39.9
Colo-----	215	12,973	60.3	111	11.7
Conn-----	452	22,493	49.8	76	29.6
Del-----	89	3,703	41.6	24	15.4
Fla-----	109	18,726	171.8	177	10.6
Ga-----	385	26,786	69.6	193	13.9
Hawaii-----	14	3,089	220.6	14	22.1
Idaho-----	747	28,713	38.4	192	15.0
Ill-----	1,646	63,952	38.9	504	12.7
Ind-----	1,124	40,297	35.9	398	10.1
Iowa-----	1,786	57,438	32.2	790	7.3
Kans-----	773	33,098	42.8	304	10.9
Ky-----	535	22,000	41.1	480	4.6
La-----	69	5,268	76.3	219	2.4
Maine-----	484	19,322	39.9	90	21.5
Md-----	835	45,373	54.3	212	21.4
Mass-----	515	22,256	43.2	87	25.6
Mich-----	2,170	86,263	39.8	627	13.8
Minn-----	3,902	125,954	32.3	1,264	10.0
Miss-----	190	11,334	59.7	304	3.7
Mo-----	591	24,321	41.2	608	4.0
Mont 2/-----	88	4,055	46.1	70	5.8
Nebr-----	317	13,265	41.8	285	4.7
Nev-----	46	3,849	83.7	15	25.7
N. H-----	289	12,927	44.7	50	25.9
N. J-----	553	29,992	54.2	117	25.6
N. Mex-----	36	5,354	148.7	40	13.4
N. Y-----	3,795	167,490	44.1	1,217	13.8
N. C-----	799	42,913	53.7	250	17.2
N. Dak-----	190	6,612	34.8	255	2.6
Ohio-----	2,283	80,600	35.3	626	12.9
Okla-----	183	10,589	57.9	213	5.0
Oreg-----	440	27,215	61.9	144	18.9
Pa-----	4,746	172,807	36.4	848	20.4
P. R-----	19	4,688	246.7	-	-
R. I-----	50	2,518	50.4	12	21.0
S. C-----	242	19,858	82.1	100	19.9
S. Dak-----	174	6,876	39.5	230	3.0
Tenn-----	487	25,510	52.4	476	5.4
Tex-----	348	27,782	79.8	519	5.4
Utah-----	400	18,237	45.6	90	20.3
Vt-----	996	47,298	47.5	252	18.8
Va-----	1,075	61,402	57.1	309	19.9
Wash-----	871	50,766	58.3	222	22.9
W. Va-----	228	9,720	42.6	112	8.7
Wis-----	2,934	117,995	40.2	2,127	5.5
Wyo-----	43	1,296	30.1	26	5.0
Total or average-----	40,670	2,010,144	49.4	16,538	12.2

1/ Average number of milk cows on farms excluding heifers not fresh;  
estimated by the Statistical Reporting Service.

2/ Based on last report available (1-1-63).

Table 4--OWNER-SAMPLER RECORDKEEPING IN THE UNITED STATES  
(January 1, 1964)

State	Counties No.	Herds No.	Cows No.	Av. Cows per herd No.	Milk cows in U. S. 1/ Total in O-S	
					Thousand	Pct.
Ala-----	9	19	1,633	85.9	216	0.8
Alaska-----	-	-	-	-	3	-
Ariz-----	3	14	3,059	218.5	51	6.0
Ark-----	13	36	1,150	31.9	191	.6
Calif-----	19	196	8,019	40.9	798	1.0
Colo-----	8	26	902	34.7	111	.8
Conn-----	8	76	2,747	36.1	76	3.6
Del-----	2	15	370	24.7	24	1.5
Fla-----	7	7	2,137	305.3	177	1.2
Ga-----	1	1	100	100.0	193	.1
Hawaii-----	1	1	200	200.0	14	1.4
Idaho-----	3	10	165	16.5	192	.1
Ill-----	34	419	12,679	30.3	504	2.5
Ind-----	21	299	8,480	28.4	398	2.1
Iowa-----	84	1,486	33,736	22.7	790	4.3
Kans-----	28	91	2,727	30.0	304	.9
Ky-----	6	7	126	18.0	480	-
La-----	5	8	726	90.8	219	.3
Maine-----	14	106	3,542	33.4	90	3.9
Md-----	11	88	3,335	37.9	212	1.6
Mass-----	9	89	2,603	29.2	87	3.0
Mich-----	72	1,894	54,995	29.0	627	8.8
Minn-----	80	1,765	44,804	25.4	1,264	3.5
Miss-----	2	2	155	77.5	304	.1
Mo-----	4	18	450	25.0	608	.1
Mont 2/-----	6	38	1,597	42.0	70	2.3
Nebr-----	30	79	2,779	35.2	285	1.0
Nev-----	1	6	179	29.8	15	1.2
N. H-----	6	81	2,438	30.1	50	4.9
N. J-----	7	85	3,291	38.7	117	2.8
N. Mex-----	4	5	469	93.8	40	1.2
N. Y-----	49	2,995	97,407	32.5	1,217	8.0
N. C-----	11	44	1,394	31.7	250	.6
N. Dak-----	20	57	1,258	22.1	255	.5
Ohio-----	83	1,487	36,656	24.7	626	5.9
Okla-----	12	44	1,604	36.5	213	.8
Oreg-----	18	150	4,600	30.7	144	3.2
Pa-----	58	1,420	37,969	26.7	848	4.5
P. R-----	-	-	-	-	-	-
R. I-----	2	4	117	29.3	12	1.0
S. C-----	3	3	144	48.0	100	.1
S. Dak-----	33	271	6,690	24.7	230	2.9
Tenn-----	2	2	77	38.5	476	-
Tex-----	5	8	380	47.5	519	.1
Utah-----	10	21	637	30.3	90	.7
Vt-----	13	549	19,800	36.1	252	7.9
Va-----	16	82	2,616	31.9	309	.8
Wash-----	27	209	7,706	36.9	222	3.5
W. Va-----	3	13	533	41.0	112	.5
Wis-----	68	11,237	332,021	29.5	2,127	15.6
Wyo-----	3	35	1,027	29.3	26	4.0
Total or average-----	934	25,598	752,229	29.4	16,538	4.5

1/ Estimated by the Statistical Reporting Service; average number of milk cows on farms during year excluding heifers not yet fresh.

2/ Based on last report available (1-1-63).



Table 5--WEIGH-A-DAY-A-MONTH RECORDKEEPING IN THE UNITED STATES  
(January 1, 1964)

State	Counties	Herds	Cows	Av. Cows per herd	Milk cows in U. S. 1/ Total in WADAM	
	No.	No.	No.	No.	Thousand	Pct.
Ala-----	18	37	2,519	68.1	216	1.2
Alaska-----	-	-	-	-	3	-
Ariz-----	-	-	-	-	51	-
Ark-----	8	26	450	17.3	191	0.2
Calif-----	-	-	-	-	798	-
Colo-----	-	-	-	-	111	-
Conn-----	-	-	-	-	76	-
Del-----	1	3	54	18.0	24	.2
Fla-----	17	28	10,479	374.2	177	5.9
Ga-----	15	43	2,600	60.5	193	1.3
Hawaii-----	2	4	215	53.8	14	1.5
Idaho-----	3	6	335	55.8	192	.2
Ill-----	32	235	6,407	27.3	504	1.3
Ind-----	-	-	-	-	398	-
Iowa-----	4	12	153	12.8	790	-
Kans-----	10	10	300	30.0	304	.1
Ky-----	13	66	1,946	29.5	480	.4
La-----	27	153	8,471	55.4	219	3.9
Maine-----	2	5	120	24.0	90	.1
Md-----	-	-	-	-	212	-
Mass-----	-	-	-	-	87	-
Mich-----	16	34	1,083	31.9	627	.2
Minn-----	-	-	-	-	1,264	-
Miss-----	15	80	3,000	37.5	304	1.0
Mo-----	13	200	5,000	25.0	608	.8
Mont 2/-----	3	6	190	31.7	70	.3
Nebr-----	12	15	450	30.0	285	.2
Nev-----	-	-	-	-	15	-
N. H-----	1	1	30	30.0	50	.1
N. J-----	1	1	30	30.0	117	-
N. Mex-----	4	4	1,410	352.5	40	3.5
N. Y-----	-	-	-	-	1,217	-
N. C-----	37	93	4,111	44.2	250	1.6
N. Dak-----	12	86	1,602	18.6	255	.6
Ohio-----	1	7	256	36.6	626	-
Okla-----	7	16	597	37.3	213	.3
Oreg-----	3	10	250	25.0	144	.2
Pa-----	-	-	-	-	848	-
P. R-----	8	21	2,303	109.7	-	-
R. I-----	-	-	-	-	12	-
S. C-----	10	31	1,208	39.0	100	1.2
S. Dak-----	-	-	-	-	230	-
Tenn-----	22	73	1,653	22.6	476	.3
Tex-----	5	11	910	82.7	519	.2
Utah-----	-	-	-	-	90	-
Vt-----	-	-	-	-	252	-
Va-----	2	3	178	59.3	309	.1
Wash-----	1	1	131	131.0	222	.1
W. Va-----	21	75	1,708	22.8	112	1.5
Wis-----	-	-	-	-	2,127	-
Wyo-----	-	-	-	-	26	-
Total or average-----	346	1,396	60,149	43.1	16,538	.4

1/ Estimated by the Statistical Reporting Service; average number of milk cows on farms during year excluding heifers not yet fresh.

2/ Based on last report available (1-1-63).

Table 6--RECORDS PROCESSED BY STATE AND REGIONAL DHIA COMPUTING CENTERS  
(January 1, 1964)

State	Standard DHIA (Incl. DHIR)				DHIR		Owner-Sampler		Total 1/		Percent of Total Recordkeeping 1/	
	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows
	No.	No.	Pct.	Pct.	No.	No.	No.	No.	No.	No.	Pct.	Pct.
Ala-----	269	22,522	100.0	100.0	16	1,474	5	326	274	22,848	84.3	85.7
Alaska-----	3	87	25.0	16.7	3	87	-	-	3	87	25.0	16.7
Ariz-----	37	3,674	25.9	18.0	10	1,069	3	270	40	3,944	25.5	16.8
Ark-----	75	3,605	100.0	100.0	8	245	36	1,150	111	4,755	81.0	91.4
Calif-----	36	8,039	1.9	2.5	-	-	-	-	36	8,039	1.7	2.5
Colo-----	215	12,973	100.0	100.0	25	1,385	26	902	241	13,875	100.0	100.0
Conn-----	363	17,872	80.3	79.5	86	4,867	58	2,094	421	19,966	79.7	79.1
Del-----	89	3,703	100.0	100.0	5	174	15	370	104	4,073	97.2	98.7
Fla-----	48	8,943	44.0	47.8	13	2,782	-	-	48	8,943	33.3	28.5
Ga-----	239	16,712	62.1	62.4	19	1,532	1	100	244	17,724	56.9	60.1
Hawaii-----	-	-	-	-	-	-	-	-	-	-	-	-
Idaho-----	108	4,515	14.5	15.7	25	1,100	3	116	111	4,631	14.5	15.9
Ill-----	1,415	54,225	86.0	84.8	123	4,641	265	7,740	1,744	63,704	75.8	76.7
Ind-----	1,124	40,297	100.0	100.0	163	5,622	55	1,410	1,179	41,707	82.9	85.5
Iowa-----	1,594	51,531	89.2	89.7	241	8,197	689	15,579	2,283	67,110	69.5	73.5
Kans-----	531	22,812	68.7	68.9	94	3,630	51	1,489	582	24,301	66.6	67.3
Ky-----	313	11,874	58.5	54.0	45	1,652	7	126	320	12,000	52.6	49.9
La-----	52	3,185	75.4	60.5	6	400	8	726	213	12,382	92.6	85.6
Maine-----	390	16,059	80.1	83.1	49	2,570	88	3,029	478	19,088	80.3	83.0
Md-----	586	31,720	70.2	69.9	92	5,683	68	2,591	654	34,311	70.9	70.4
Mass-----	464	19,952	90.1	89.6	90	4,056	60	1,872	524	21,824	86.8	87.8
Mich-----	2,170	86,263	100.0	100.0	199	9,296	1,608	46,630	3,812	133,976	93.0	94.1
Minn-----	1,895	60,797	48.6	48.3	153	5,654	1,259	31,331	3,154	92,128	55.7	54.0
Miss-----	133	8,132	70.0	71.7	24	1,374	2	155	135	8,287	49.6	57.2
Mo-----	97	4,178	16.4	17.2	29	1,106	6	136	103	4,314	12.7	14.5
Mont 2/-----	27	1,268	30.7	31.3	2	101	17	729	50	2,187	37.9	37.4
Nebr-----	260	11,362	82.0	85.7	37	1,630	79	2,779	339	14,141	82.5	85.7
Nev-----	21	1,769	45.7	46.0	7	472	2	83	23	1,852	44.2	46.0
N. H-----	289	12,927	100.0	100.0	46	2,012	51	1,398	340	14,325	91.6	93.0
N. J-----	226	12,555	40.9	41.9	44	2,447	23	824	249	13,379	39.0	40.2
N. Mex-----	27	3,621	75.0	67.6	11	779	-	-	27	3,621	60.0	50.1
N. Y-----	3,795	167,490	100.0	100.0	401	17,600	2,400	78,000	6,195	245,490	91.2	92.7
N. C-----	799	42,913	100.0	100.0	87	5,275	44	1,394	890	46,496	95.1	96.0
N. Dak-----	155	5,727	81.6	86.6	14	491	26	659	181	6,386	54.4	67.4
Ohio-----	1,720	59,928	75.3	74.4	305	11,252	300	7,768	2,020	67,696	53.5	57.6
Okla-----	150	8,756	82.0	82.7	42	2,528	21	899	171	9,655	70.4	75.5
Oreg-----	139	9,155	31.6	33.6	24	1,815	14	500	153	9,655	25.5	30.1
Pa-----	4,746	172,807	100.0	100.0	185	7,400	1,420	37,969	6,166	210,776	100.0	100.0
P. R-----	19	4,688	100.0	100.0	19	4,688	-	-	19	4,688	47.5	67.1
R. I-----	40	1,970	80.0	78.2	12	396	4	117	44	2,087	81.5	79.2
S. C-----	242	19,858	100.0	100.0	43	3,451	3	144	245	20,002	88.8	94.3
S. Dak-----	147	6,031	84.5	87.7	24	791	37	1,058	184	7,089	41.3	52.3
Tenn-----	249	12,981	51.1	50.9	55	3,221	1	59	250	13,040	44.5	47.9
Tex-----	230	19,744	66.1	71.1	51	3,060	8	380	238	20,124	64.9	69.2
Utah-----	400	18,237	100.0	100.0	16	600	21	637	421	18,874	100.0	100.0
Vt-----	542	25,116	54.4	53.1	77	2,694	198	6,900	740	32,016	47.9	47.7
Va-----	737	42,501	68.6	69.2	92	6,698	81	2,531	818	45,032	70.5	70.1
Wash-----	199	10,924	22.8	21.5	51	3,376	19	480	219	11,535	20.3	19.7
W. Va-----	89	3,330	39.0	34.3	13	584	4	84	168	5,122	53.2	42.8
Wis-----	2,630	107,830	89.6	91.4	392	16,072	5,401	165,270	8,031	273,100	56.7	60.7
Wyo-----	43	1,296	100.0	100.0	2	101	35	1,027	78	2,323	100.0	100.0
Total or Average--	30,167	1,298,454	74.2	64.6	3,570	167,930	14,522	429,831	45,073	1,744,708	66.6	61.8

1/ Includes WADAM Records: Georgia, 4 herds, 912 cows; Illinois, 64 herds, 1,739 cows; Louisiana, 153 herds, 8,471 cows; Michigan, 34 herds, 1,083 cows; Montana, 6 herds, 190 cows; North Carolina, 47 herds, 2,189 cows; Washington, 1 herd, 131 cows; West Virginia, 75 herds, 1,708 cows.  
Total - 384 herds, and 16,423 cows.

2/ Based on last report available (1-1-63).

Table 7--TEN-YEAR SUMMARY (1954-1963)

Year	U. S. Report 1/					DHIA Production/Cow			Total DHIA Program	
	No. Milk Cows 2/	Milk Produced	Production/Cow			Standard Plan			No. Cows	Percent of U. S. Cows
			Milk	Pct. Fat	Fat	Milk	Pct. Fat	Fat		
	Thousand	Mil. Lbs.	Lbs.		Lbs.	Lbs.		Lbs.	Thousand	
1954	21,581	122,094	5,657	3.87	219	9,363	3.97	372	1,334	6.2
1955	21,044	122,945	5,842	3.85	225	9,502	3.95	375	3/ 1,781	8.5
1956	20,501	124,860	6,090	3.83	233	9,713	3.94	383	4/ 1,906	9.3
1957	19,774	124,628	6,303	3.81	240	9,894	3.93	389	2,118	10.7
1958	18,711	123,220	6,585	3.78	249	10,068	3.91	394	2,232	11.9
1959	17,901	121,989	6,815	3.76	256	10,327	3.88	401	2,439	13.6
1960	17,560	122,951	7,002	3.76	263 5/	10,561 5/	3.87 5/	409	2,594	14.8
1961	17,367	125,442	7,223	3.75	271	10,796	3.87	418	2,727	15.7
1962	17,050	126,021	7,391	3.73	276	11,032	3.86	426	2,784	16.3
1963	16,538	124,783	7,545	3.72	281	11,286	3.85	434	2,823	17.1

1/ USDA Statistical Reporting Service Annual Summary, February 1964.

2/ Number of milk cows on farms during year, excluding heifers not fresh.

3/ Report of Owner-Sampler testing included for first time.

4/ Report of WADAM testing included for first time.

5/ Average of 1959 and 1961 since date of collecting data for summary changed in 1961.

COUNTIES, BY STATE, WITH 25% OR MORE COWS INCLUDED IN THE  
NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM

(January 1, 1964)

State	County (Name)	Cows (Pct.)	State	County (Name)	Cows (Pct.)	State	County (Name)	Cows (Pct.)	State	County (Name)	Cows (Pct.)
ALABAMA			GEORGIA (con't.)			MAINE (con't.)			NEW YORK (con't.)		
Elmore	36		Rabun	75		Androscoggin	34		Dutchess	44	
Montgomery	33		Fayette	70		Cumberland	32		Tompkins	40	
Talladega	33		Jefferson	70		York	29		Columbia	39	
Russell	31		Rockdale	69		Penobscot	27		Orleans	36	
Jefferson	26		Lee	66		Somerset	27		Onondaga	34	
ARIZONA			Newton	65		MARYLAND			Wayne	33	
Pima	100		Clarke	63		Howard	50		Monroe	32	
Greenlee	65		Brooks	60		Kent	39		Schoharie	32	
Maricopa	61		Lincoln	60		Montgomery	34		Madison	31	
Pinal	53		Carroll	57		Harford	32		Schuyler	30	
Graham	26		Turner	56		Baltimore	30		Seneca	30	
CALIFORNIA			Stewart	55		Carroll	28		Chenango	29	
Monterey	72		Cook	50		Cecil	27		Cortland	28	
Contra Costa	67		Jeff Davis	50		MASSACHUSETTS			Chautauqua	27	
Kern	65		Mitchell	48		Barnstable	54		Wyoming	27	
Marin	62		Decatur	45		Berkshire	38		Tioga	26	
Madera	61		Floyd	45		Essex	36		Erie	25	
San Diego	61		Spalding	45		Hampshire	33		NORTH CAROLINA		
Riverside	57		Walton	45		Plymouth	28		Bertie	100	
Sonoma	54		Heard	43		Franklin	25		Carteret	100	
San Joaquin	51		Jones	40		Worcester	25		Richmond	100	
Solano	51		McIntosh	39		MICHIGAN			Swain	100	
Fresno	50		Sumter	39		Oakland	43		Washington	100	
Santa Barbara	50		Effingham	36		Lenawee	41		Martin	99	
Inyo-Mono	49		Worth	36		Ingham	39		Jones	98	
Del Norte	48		Peach	35		Calhoun	36		Cumberland	94	
Merced	48		Butts	32		Livingston	35		Perquimans	91	
Santa Clara	46		Richmond	32		Eaton	34		Orange	81	
Stanislaus	44		Fulton	30		Jackson	34		Halifax	80	
Napa	43		Coffee	28		Monroe	34		Brunswick	76	
Santa Cruz	41		Henry	27		St. Joseph	34		Wilson	70	
Shasta	40		Thomas	26		Kalamazoo	33		Warren	69	
San Benito	39		Bacon	25		Muskegon	33		Hyde	68	
San Mateo	39		Colquitt	25		Shiawassee	31		Jackson	65	
Ventura	39		Crawford	25		Clinton	30		Lenoir	65	
Colusa	38		Jasper	25		Washtenaw	30		Pitt	64	
Placer-Nevada	38		Laurens	25		Oscoda	29		Columbus	62	
Sacramento	38		HAWAII			Ionia	28		Casewell	60	
Sutter	38		Oahu	30		Branch	27		Granville	59	
San Bernardino	37		ILLINOIS			Barry	27		Wake	59	
San Luis Obispo	36		Kendall	45		Branch	27		Watauga	59	
Tehama	35		Christian	41		Iosco	27		New Hanover	56	
Humboldt	34		Stark	41		Berrien	26		Pamlico	56	
Mendocino-Lake	32		Grundy	39		Gratiot	26		Scotland	56	
Kings	30		Moultrie	38		Mason	26		Carven	55	
Yuba	30		Champaign	33		Genesee	25		Nash	55	
Orange	26		DuPage	32		Huron	25		Guilford	54	
Los Angeles	25		Effingham	30		Saginaw	25		Person	54	
COLORADO			Logan	29		MINNESOTA			Wayne	54	
Chaffee	47		Jasper	28		Dakota	31		Rockingham	53	
Fueblo	34		Bond	27		Winona	31		Greene	52	
Boulder	27		Kankakee	27		Goodhue	26		Edgecombe	51	
Jefferson	27		Lake	27		McLeod	25		Pender	50	
CONNECTICUT			INDIANA			NEVADA			Onslow	49	
Middlesex	50		Elkhart	39		Churchill	55		Caldwell	47	
Litchfield	43		Cass	29		Clark	49		Gaston	46	
Tolland	40		Boone	28		Douglas	35		Hoke	46	
New Haven	30		IOWA			NEW HAMPSHIRE			Duplin	43	
Windham	30		Dallas	34		Merrimack	54		Catawba	42	
Hartford	28		Lee	29		Sullivan	42		Sampson	42	
FLORIDA			Polk	26		Cheshire	41		Cleveland	40	
Sarasota	58		Scott	26		Grafton	31		Johnston	39	
Orange	53		Story	26		Coos	29		Beaufort	38	
Jefferson	50		KANSAS			Belknap	28		Lee	38	
Manatee	50		Finney	42		Hillsborough	27		Bladen	37	
Putnam	48		Comanche	39		NEW JERSEY			Union	35	
Osceola	44		Saline	39		Burlington	37		Durham	34	
Seminole	43		Hamilton	33		Somerset	35		Northampton	34	
Highlands	42		Chase	26		Hunterdon	32		Wilkes	34	
Gilchrist	39		Harvey	26		Gloucester	29		Macon	33	
Pasco	38		Seward	26		Sussex	28		Randolph	32	
Nassau	33		Pawnee	25		Morris	25		Chatham	31	
Levy	30		LOUISIANA			Salem-Cumberland	25		Harnett	30	
Volusia	30		Ascension	100		Warren	25		Mecklenburg	30	
Washington	30		Iberia	34		NEW MEXICO			Stanley	30	
Dade	27		Richland	31		Dona Ana	68		Yadkin	27	
Jackson	27		West Feliciana	31		Bernalillo	35		Davie	25	
Martin	25		Franklin	28		Sandoval	28		Haywood	25	
GEORGIA			Grant	28		NEW YORK			Henderson	25	
Dooly	100		Rapides	27		Long Island	50		Madison	25	
Douglas	100		West Carroll	27		Ontario	49		OHIO		
Evans	100		Osachita	26		Genesee	46		Marion	38	
Montgomery	100		Bossier	25		MAINE			Medina	38	
Baldwin	80		MAINE			Oxford	40		Logan	35	
Tattnall	80								Champaign	34	
Houston	79								Clarke	32	
Macon	75								Erie	32	
									Allen	31	
									Henry	31	
									Auglaize	30	
									Fulton	30	



COUNTIES, BY STATE, WITH 25% OR MORE COWS INCLUDED IN THE  
NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM (con't.)

(January 1, 1964)

State	County (Name)	Cows (Pct.)	State	County (Name)	Cows (Pct.)
OHIO (con't.)			VERMONT		
	Miami-----	30		Bennington-----	44
	Lorain-----	29		Windham-----	39
	Columbiana-Mahoning--	28		Addison-----	36
	Shelby-----	26		Windsor-----	35
	Ashland-----	25		Washington-----	31
	Huron-----	25		Rutland-----	29
	Seneca-----	25		Franklin-----	26
	Wayne-----	25		Orange-----	26
OREGON			VIRGINIA		
	Josephine-----	32		Northampton-----	76
	Deschutes-----	30		Roanoke-----	63
	Lane-----	29		Clarke-----	59
	Washington-----	29		Powhatan-----	55
	Clackamas-----	25		James City-----	52
PENNSYLVANIA				City of Chesapeake--	50
	Montgomery-----	43		Southampton-----	47
	Clinton-----	41		City of Va. Beach---	46
	Bucks-----	37		Loudoun-----	45
	Blair-----	36		Nansemond-----	42
	Dauphin-----	36		Culpeper-----	40
	Union-----	36		Prince George-----	39
	Allegheny-----	34		Franklin-----	38
	Montour-----	33		Orange-----	38
	Perry-----	32		Dinwiddie-----	37
	Potter-----	32		Madison-----	37
	Mifflin-----	31		Bath-----	36
	Northumberland-----	31		Prince William-----	36
	Centre-----	29		Amelia-----	35
	Lancaster-----	29		Isle of Wight-----	35
	Luzerne-----	29		Pulaski-----	34
	Wyoming-----	29		Rockingham-----	34
	Chester-----	28		Warren-----	33
	Cumberland-----	28		Wise-----	33
	Huntington-----	28		Fauquier-----	32
	Juniata-----	28		Fairfax-----	31
	Lebanon-----	28		Henrico-----	30
	Lehigh-----	28		Spotsylvania-----	30
	McKean-----	27		Augusta-----	29
	Schuylkill-----	27		Charlotte-----	28
	Sullivan-----	27		King William-----	28
	Berks-----	26		Brunswick-----	25
	Northampton-----	26		Hanover-----	25
	Bradford-----	25	WASHINGTON		
	Tioga-----	25		Jefferson-----	60
PUERTO RICO				Grays Harbor-----	58
	Bayamon-----	32		Pierce-----	47
	Carolina-----	30		Wahkiakum-----	45
RHODE ISLAND				Island-----	41
	Washington-----	34		Skagit-----	41
	Kent-----	32		Spokane-----	37
	Newport-----	25		Kittitas-----	36
SOUTH CAROLINA				Pend Oreille-----	34
	Sumter-----	53		Grant-----	33
	Orangeburg-----	44		King-----	33
	Saluda-----	44		Kitsap-----	33
	Bamberg-----	43		Thurston-----	33
	Lee-----	42		Walla Walla-----	31
	Calhoun-----	40		Clallam-----	27
	Marlboro-----	34	WEST VIRGINIA		
	Colleton-----	33		Mason-----	28
	Beaufort-----	32	WISCONSIN		
	Newberry-----	32		Kenosha-----	40
	Jasper-----	29		Winnebago-----	39
	Edgefield-----	27		Kewaunee-----	34
SOUTH DAKOTA				Manitowoc-----	31
	Lawrence-----	44		Rock-----	30
	Butte-----	40		Waukesha-----	30
	Custer-----	34		Calumet-----	29
	Pennington-----	26		Outagamie-----	29
UTAH				Racine-----	29
	Wasatch-----	41		Walworth-----	29
	Summit-----	38		Barron-----	28
	Salt Lake-----	31		Florence-----	28
	Morgan-----	30		St. Croix-----	28
	Weber-----	25		Green Lake-----	27
				Brown-----	25
				Dunn-----	25
				Jefferson-----	25
				Sheboygan-----	25





## OFFICIALS IN CHARGE OF DAIRY-HERD-IMPROVEMENT ASSOCIATIONS IN THE STATES

Ala----- R. Sam Jones, Jr., Ext. Service, Auburn University, Auburn.  
Alaska-- W. J. Sweetman, Ext. Service, University of Alaska, Palmer.  
Ariz---- W. R. Van Sant, Ext. Service, University of Arizona, Tucson.  
Ark----- James B. Ragland, Ext. Service, P. O. Box 391, University of Arkansas,  
Little Rock.  
Calif--- C. L. Pelissier, Ext. Service, University of California, Davis.  
Colo---- Dawson C. Jordan, Ext. Service, Colorado State University, Ft. Collins.  
Conn---- Robert H. Benson, Ext. Service, University of Connecticut, Storrs.  
Del----- W. R. Hesseltine, Ext. Service, University of Delaware, Newark.  
Fla----- C. W. Reeves, Ext. Service, University of Florida, Gainesville.  
Ga----- W. H. McKinney, Ext. Service, University of Georgia, Athens.  
Hawaii-- Harvey M. Vollrath, Ext. Service, University of Hawaii, Honolulu 10.  
Idaho--- George W. Cleveland, Dairy Ext. Division, University of Idaho, 317½  
N. 8th St., Boise.  
Ill----- J. G. Cash, Ext. Service, University of Illinois, Urbana.  
Ind----- S. M. Gregory, Ext. Service, Purdue University, W. Lafayette.  
Iowa---- D. E. Voelker, Ext. Service, Morrill Hall, Iowa State Univ., Ames.  
Kans---- E. Ralph Bonewitz, Ext. Service, Kansas State University, Manhattan.  
Ky----- E. C. Troutman, Ext. Service, University of Kentucky, Lexington 29.  
La----- N. J. Matherne, Ext. Service, Louisiana State University, Baton Rouge 3.  
Maine--- Norman R. Ness, Ext. Service, University of Maine, Orono.  
Md----- J. R. Schabinger, Ext. Service, University of Maryland, College Park.  
Mass---- Basil Eastwood, Ext. Service, University of Massachusetts, Amherst.  
Mich---- L. A. Johnson and Curtis C. Miller, Ext. Service, Michigan State Univ.,  
East Lansing.  
Minn---- Ralph W. Wayne, Ext. Service, University of Minnesota, St. Paul 1.  
Miss---- George B. Crain, Ext. Service, Mississippi State University,  
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